

IN THE CLAIMS

Please amend the claims as follows:

1. (Original) Control apparatus for providing fluid and power to an ultrasonic phacoemulsification handpiece during ocular surgery on an eye, said control apparatus comprising:

means for providing irrigation fluid to the handpiece;

means for aspirating fluid from the eye;

means for monitoring energy provided to the handpiece;

means for monitoring energy removed from the eye by aspirating fluid, including means for measuring a flow rate of the aspirated fluid and means for measuring a temperature difference between the irrigation fluid and the aspirated fluid; and

computer means, responsive to input from the means for monitoring energy provided to the handpiece and the means for monitoring energy removal from the eye for determining a matrix of power levels and duty cycle combinations that will not generate sufficient heat to create damage of eye tissue.

2. (Original) The control apparatus according to claim 1 wherein said computer means further comprises means for preventing operation of the handpiece at power levels and duty cycle combinations outside of the determined matrix.

3. (Original) In a control console for providing irrigation fluid and energy to an ultrasonic phacoemulsification handpiece and aspirating fluid from an

eye during ocular surgery, control apparatus for regulating fluid flow and power, said control apparatus comprising:

means for monitoring energy provided to the handpiece by the control console;

means for monitoring energy removed from the eye by aspirated fluid, including means for measuring a flow rate of the aspirated fluid and means for measuring a temperature difference between the irrigation fluid and the aspirated fluid; and

computer means, responsive to input from the means for monitoring energy provided to the handpiece and the means for monitoring energy removal from the eye for determining a matrix of power levels and duty cycle combinations that will not generate sufficient heat to create damage of eye tissue.

4. (Original) The control apparatus according to claim 3 wherein said computer means further comprises means for preventing operation of the handpiece at power levels and duty cycle combinations outside of the determined matrix.

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (New) Control apparatus for regulating fluid flow and energy in a control console for providing irrigation fluid and energy to an ultrasonic phacoemulsification handpiece and aspirating fluid from an eye during ocular surgery, the apparatus comprising:

a test handpiece;

means for monitoring energy removed from the eye by fluid aspirated by the test handpiece including measuring a flow rate of aspiration fluid and measuring a temperature difference between the irrigation fluid and the aspiration fluid using the test handpiece; and

computer means responsive to input from the means for monitoring energy provided and energy removed by the test handpiece, for calculating a matrix of power levels and duty cycle combination that will not generate sufficient heat to create damage in eye tissue in order to alert a user of subsequent handpiece systems of selected power levels and duty cycle that would cause damage of eye tissue.